SUPREME COURT OF QUEENSLAND

CITATION:	*O'Connor & O'Connor v Arrow (Daandine) Pty Ltd* [2009] QSC 432
PARTIES:	**THOMAS JOSEPH O'CONNOR AND MICHELLE BERNADETTE O'CONNOR** (applicants) **v** **ARROW (DAANDINE) PTY LIMITED** ACN 114 927 481 (respondent)
FILE NO/S:	SC 13551 of 2009
DIVISION:	Trial Division
PROCEEDING:	Originating Application
ORIGINATING COURT:	Supreme Court at Brisbane
DELIVERED ON:	23 December 2009
DELIVERED AT:	Brisbane
HEARING DATE:	16 December 2009
JUDGE:	Margaret Wilson J
ORDER:	
CATCHWORDS:	ENERGY AND RESOURCES – OIL – EXPLORATION – where respondent is a subsidiary of Arrow Energy Ltd – where Arrow Energy NL was granted a 30 year lease under the *Petroleum and Gas (Production and Safety) Act* 2004 (Qld) ("the Act") over an area in the Surat Basin ("PL230") – where lease holder is entitled to explore, develop and store petroleum in accordance with the lease and the provisions of the Act – where lease overlaps numerous properties, including those of applicants – where lease now held by the respondent as to 70 percent and Shell CSG (Australia) Pty Ltd as to 30 percent – where respondent carries on business of exploring for, developing reserves of and producing coal seam gas ("CSG") – where works on PL230 commenced in November 2008 – where holders of PL230 have obtained an environmental authority under *Environmental Protection Act* 1994 (Qld), s 312L in relation to the development of their lease and the production of CSG and the area covered by it – where authority requires associated water to be beneficially used in accordance with the Queensland Government's Environmental Protection Agency's Policy – where the holders of PL230 submitted a water management plan which

provides for the construction of reverse osmosis plants to enable associated water to be treated and pipelines to enable the treated water to be transported for beneficial use – where reverse osmosis plant is currently in the commissioning phase and will not be fully operational until 2010 – where the only water currently being treated on PL230 is for testing purposes only, and no treated water is currently being piped on PL230 – where the part of the treated water pipeline which is proposed to be on the applicants' land will be 2.8 km in length and 355 mm in diameter – whether construction of the treated water pipeline is "an authorised activity" for the purposes of PL230 – where respondent served a notice of entry pursuant to s 497 of the Act on applicants – whether that notice effective in relation to construction of treated water pipeline – whether respondent's entry on applicants' land for the purpose of constructing the treated water pipeline is unlawful because of failure to give an entry notice as required by s 497 of the Act

EQUITY – EQUITABLE REMEDIES – INJUNCTIONS – CONSIDERATIONS UPON WHICH COURT EXERCISES DISCRETION – FUTILITY OF REMEDY – DECLARATIONS – where applicants seek injunctive and declaratory relief in relation to respondent's construction of the treated water pipeline across their land – whether applicants entitled to declarations as to the unlawfulness of respondent's entry on their land to construct the pipeline – whether to grant applicants an order restraining respondent from further construction of the pipeline – whether to grant applicants a mandatory injunction for the removal of the pipeline

Acts Interpretation Act 1954 (Qld), s 14A
Environmental Protection Act 1994 (Qld), s 312L
Petroleum and Gas (Production and Safety) Act 2004 (Qld), s 3, s 15, s 18, s 22(1), s 497, s 108, s 109, s 110, s 111, s 112(1), s 185(1)(a), s 185(4), s 185(5), s 186, s 531, s 533, s 536(2)(c)

COUNSEL: D A Skennar for the applicants
J I Otto for the respondent

SOLICITORS: Alroe & O'Sullivans for the applicants
Hopgood Ganim Lawyers for the respondent

[1] **MARGARET WILSON J:** In this proceeding the applicants seek injunctive and declaratory relief in relation to the respondent's construction of a certain water pipeline across their land near Dalby.

[2] On 19 December 2005 Arrow Energy NL was granted a 30 year lease under the *Petroleum and Gas (Production and Safety) Act* 2004 ("the Act") over an area in the Surat Basin ("PL230"). The holder of the lease is entitled to explore, develop and

store petroleum in accordance with the terms and conditions of the lease and the provisions of the Act relating to petroleum leases. The lease overlaps numerous properties, including those of the applicants. It is now held by the respondent as to 70 percent and Shell CSG (Australia) Pty Ltd as to 30 percent.

[3] The respondent is a subsidiary of Arrow Energy Ltd ("Arrow"). The companies carry on the business of exploring for, developing reserves of and producing coal seam gas ("CSG"). CSG is a form of petroleum.

[4] PL230 is an integral component of Arrow and the respondent's CSG plans. CSG produced from that lease is primarily supplied to the local Braemer 2 Power Station. They have plans to export LNG (including LNG produced from CSG produced from PL230) from Gladstone.

[5] Works on PL230 started in November 2008. In order to develop the CSG reserve, the respondent plans to construct a total of 230 wells. Of those, 115 wells have been constructed to date. It is anticipated that sufficient gas will be produced from PL230 to provide energy to power about 100,000 houses per day.

[6] The production process has been explained by the respondent's environmental officer, Carolyn Anne Collins. It involves the following process:-

(a) CSG is stored between subterranean coal seams and is pressurised by subterranean water ("associated water");

(b) to extract CSG, wells are drilled into the coal seams;

(c) the pressure on the CSG is released by the extraction of the associated water which then flows to the surface;

(d) CSG can then be extracted and brought to the surface;

(e) once at the surface, the CSG is transported through a pipeline to a compressor station, which compresses it to ensure an even flow and to allow it to be easily transported;

(f) associated water which is extracted in that process is a necessary by-product of the process.

[7] Ms Collins has explained that the disposal of associated water extracted in the CSG process is a major challenge for CSG producers. The water is untreated and, although it can be used in its untreated state for some purposes (eg. feed lots and some industrial processes), it cannot be used in that state more generally (eg. for irrigation or urban use). CSG producers have traditionally pumped associated water into large evaporation ponds. That method of disposing associated water is environmentally problematic for two reasons:

(i) a high volume of water will produced over time; and

(ii) associated water is normally very high in salt and mineral content, and after the water has evaporated, the salt and mineral residue is a soil contaminant.

[8] The holders of PL230 have obtained an environmental authority under s 312L of the *Environmental Protection Act* 1994 in relation to their development of their lease and the production of CSG and the area covered by it. This requires associated water to be beneficially used in accordance with the Queensland Government Environmental Protection Agency's policy – "Operational Policy for Management of Water produced in association with Petroleum Activities (Associated Water)".

[9] Under the environmental authority the holders of PL230 were required to submit a water management plan. That plan, entitled "Daandine Water Treatment Project PL230", is dated 11 March 2009. It provides for the construction of reverse osmosis plants to enable associated water to be treated and pipelines to enable the treated water to be transported for beneficial use.

[10] Ms Collins has deposed that by April 2010, when all of the necessary infrastructure has been constructed and is operational –

(a) associated water will be extracted from coal seams in the course of extracting CSG;

(b) the associated water will be piped from the wells to a pond on land owned by the respondent;

(c) from that pond the associated water will be treated in a reverse osmosis plant constructed on land owned by Arrow;

(d) during the reverse osmosis process, the water will be put through a membrane which will separate it into concentrated brine and pure treated water. The process will remove solutes such as salt, metals and nutrients leaving pure demineralised water;

(e) the treated water will then be piped to a pond on land owned by Arrow Energy Ltd; and

(f) from that pond the treated water will be piped through the applicants' property (among other properties) to be discharged on to land owned by Arrow Land Holdings Pty Ltd for irrigation purposes, all within the area of PL230.

[11] The reverse osmosis plant is currently in the commissioning phase and will not be fully operational until 2010. The only water currently being treated on PL230 is for testing purposes only, and no treated water is currently being piped on PL230.

[12] That part of the treated water pipeline which is proposed to be on the applicants' land will be 2.8 kilometres in length and 355 millimetres in diameter.

[13] Jonathan Richard Shirley, the respondent's project manager, has deposed that Arrow and the respondent estimate the total cost of developing the CSG reserve within PL230 in order to supply CSG to the Braemer 2 Power Station is $115,514,133. Of that estimate, $28,593,785 relates to the construction of water infrastructure (ie. the reverse osmosis system including holding ponds, the reverse osmosis treatment plant and the treated water pipeline), and $12,237,885 relates to the construction of upstream works (ie. gas and untreated water pipelines.). He estimates that the respondent will incur costs of $10,000 to complete the treated water pipeline by carrying out pressure testing and land rehabilitation, installation of signage and other completion of the installation.

[14] Mr Shirley has deposed that the respondent is undertaking works on the applicants' property, which include:-

(a) the Statheden-Daandine pipeline, which was constructed about one and a half years ago;

(b) 12 vertical wells and associated pipelines – gas and untreated water pipelines. Drilling on the applicants' property has now finished and the gas and untreated water pipelines, insofar as they cross the applicants' property, are expected to be completed before Christmas 2009;

(c) a pipeline to carry treated water from the reverse osmosis plant to land owned by Arrow Land Holdings Pty Ltd on which it is to be discharged.

[15] The respondent is liable to pay compensation to the applicants in respect of the vertical wells and the gas and untreated water pipelines. It concedes that it is liable to compensate them also in respect of the treated water pipeline: see s 531 of the Act. Compensation in respect of the vertical wells and the gas and untreated water pipelines is the subject of a compensation agreement made on 11 September 2009. Negotiations for compensation for the treated water pipeline have not resulted in an agreement.

[16] On 25 August 2009 the respondent served a notice of entry pursuant to s 497 of the Act on the applicants. At that time the compensation for the vertical wells and the gas and untreated water pipelines was still being negotiated. On 9 September 2009 representatives of the respondent attended a meeting with the applicants and their solicitor when compensation for the vertical wells and the gas and untreated water pipelines was discussed. At that meeting Campbell McKerrow, the respondent's land manager, told the applicants and their solicitor that, in addition to the construction of the wells and the gas and untreated water pipelines, the respondent planned to install a third pipeline to carry treated water from the reverse osmosis plant to another nearby property. That was the first time the applicants heard about the treated water pipeline. It was agreed that the treated water pipeline should be the subject of a separate compensation agreement.

[17] There were negotiations for compensation for the treated water pipeline over the ensuing weeks. On 9 November 2009 the respondent filed an originating application in the Land Court seeking the determination of compensation in respect

of it. An amended originating application was filed in the Land Court on 26 November 2009.

[18] On 30 November 2009 the applicants filed an originating application in this Court seeking an injunction restraining the construction of the treated water pipeline on their land. An amended originating application was filed on 3 December 2009 by which they seek also declarations that -

(a) the respondent entered the land contrary to section 497of the Act in that it did not give the applicants a notice of entry in relation to the treated water pipeline ("the notice");

(b) by reason of the failure to give the notice the respondent has no lawful entitlement to be on the land to construct the treated water pipeline;

(c) the construction of the pipeline is not an authorised activity pursuant to the Act or PL230;

(d) the respondent is not entitled to enter the land by reason of the commencement of proceedings in the Land Court pursuant to section 533 of the Act.

and an order that the respondent remove the treated water pipeline from their land.

The application was heard in the Applications List on 16 December 2009.

[19] In an affidavit sworn on 15 December 2009 Mr Shirley deposed that works on the treated pipeline had begun on 24 November 2009 and were expected to be completed on 19 December 2009. He deposed that the costs of removing the treated water pipeline without causing damage to the gas and untreated water pipelines would be approximately $87,000.

[20] At the hearing on 16 December 2009 the Court was informed that the treated water pipeline was being laid within the 30 metre corridor for accessing services the subject of the compensation agreement made on 11 September 2009. Work on laying the gas and untreated water pipelines commenced first. That trench was progressively backfilled. The treated water pipeline was laid in a parallel trench. From the point where work laying the treated water pipeline caught up with that in laying the gas and untreated pipelines, the three pipes were placed in the one trench. They were in the same trench for about 1.3 kilometres across the applicants' land.

[21] At the hearing, counsel for the respondent told the Court that workers had been stood down because of wet weather.

[22] Upon the applicants giving the usual undertaking as to damages, the respondents undertook to cease work on the treated water pipeline until judgment or further earlier order.

[23] There are two issues for determination:

(a) whether the construction of the treated water pipeline is "an authorised activity" for the purposes of PL230; and

(b) whether the respondent's entry on the applicants' land for the purpose of constructing the treated water pipeline is unlawful because of failure to give an entry notice as required by s 497 of the Act.

[24] PL230 is a "petroleum authority" within s. 18 of the Act.

[25] Chapter 2 Part 2 Division 1 Subdivision 1 (ss 108-112) of the Act provides for the key "authorised activities" for a petroleum lease. Such activities may be carried out despite the rights of an owner or occupier of land on which they are exercised: see s 108.

[26] By s 22(1) -

> "**22 What is an *authorised activity***
> (1) An *authorised activity*, for a petroleum authority, is an activity that its holder is, under this Act or the authority, entitled to carry out in relation to the authority.
> *Notes—*
> 1 The provisions of the authority may restrict the carrying out of authorised activities. See sections 42, 85, 123, 165, 178, 396, 412, 447, 484 and 790(3).
> 2 The carrying out of authorised activities is subject to the restrictions and the authority holder's rights and obligations under chapters 2 to 5. See section 562.
> 3 For who may carry out an authorised activity for a petroleum authority holder, see section 563."

[27] By s 109(1) a lease holder may carry out certain activities in the area of the lease including:-

(a) exploring for petroleum; and

(b) petroleum production.

[28] By s 15(1) petroleum is produced when it is recovered or released to ground level from a natural underground reservoir in which it has been contained or from which it is extracted.

[29] By s 110(1) a lease holder may construct and operate petroleum pipelines and water pipelines in the area of the lease. By s 110(3) a water pipeline may only be operated to transport water for carrying out an authorised activity for the lease.

[30] Section 112(1) permits the lease holder to carry out incidental activities. It provides:-

> "**112 Incidental activities**
> (1) The lease holder may carry out an activity (an *incidental activity*) in the area of the lease if carrying out the activity is reasonably

> necessary for, or incidental to, another authorised activity for the lease.
> *Examples of incidental activities—*
> 1 constructing or operating plant or works, including, for example, communication systems, compressors, powerlines, pumping stations, reservoirs, roads, evaporation or storage ponds and tanks
> 2 constructing or using temporary structures or structures of an industrial or technical nature, including, for example, mobile and temporary camps
> 3 removing vegetation for, or for the safety of, exploration or testing under section 152(1)"

[31] By s 185(1)(a) the holders of PL230 may take or interfere with underground water in the area of the tenure if the taking or interference happens during the course of, or results from, carrying out another authorised activity for the tenure. One of the examples given is underground water necessarily or unavoidably taken during the drilling of a petroleum well or water observation bore. Underground water taken or interfered with under s 185(1)(a) is called "associated water": see s 185(4). The tenure holder may use associated water only for another authorised activity for the tenure: s 185(5). The tenure holder may allow the owner or occupier of land in the area of the tenure or land joining land in the area of the tenure owned by some other person to use associated water for domestic or stock purposes. Domestic purposes relate to the irrigation of gardens not exceeding 0.25 hectares in area. In the present case the use of the treated water for irrigation purposes on the land on which it is to be discharged would clearly not be within s 186.

[32] The question, then, is whether the construction of the reverse osmosis plant and the treated water pipeline is an incidental activity within s 112. Is it one reasonably necessary for, or incidental to, another authorised activity for the lease?

[33] The disposal of associated water, an inevitable by-product of CSG production, is fraught with risks to the environment, as Ms Collins has explained.

[34] The applicants contend that the treated water pipeline is a mere conduit between the reverse osmosis plant and the land owned by a company related to the respondent on to which the water is to be discharged for irrigation purposes. They contend that the purpose of the reverse osmosis plant is to treat the water so that it may be used for crop irrigation, and that that is not an authorised activity and not one reasonably necessary for or incidental to the production of the CSG.

[35] The purpose of the legislation must be borne in mind, because by s 14A of the *Acts Interpretation* Act 1954 the interpretation which will best achieve that purpose is to be preferred to any other. Section 3 provides -

> "**3 Main purpose of Act**
> (1) The main purpose of this Act is to facilitate and regulate the carrying out of responsible petroleum activities and the development of a safe, efficient and viable petroleum and fuel gas industry, in a way that—
> (a) manages the State's petroleum resources—
> (i) in a way that has regard to the need for ecologically sustainable development; and

(ii) for the benefit of all Queenslanders; and

…

(g) optimises coal seam gas production and coal or oil shale mining in a safe and efficient way; and

(h) appropriately compensates owners or occupiers of land; and

(i) encourages responsible land management in the carrying out of petroleum activities; and …"

[36] The respondent's plan for the management of associated water is one that provides for its treatment and beneficial use. The only way the treated water can be beneficially used is for it to be transported to somewhere it can be put to good use. The treated water pipeline is necessary infrastructure for the attainment of that end. The respondent's activities, within the area of PL230, in establishing the reverse osmosis plant and laying a pipeline to transport the treated water from that plant to land on which it is to be discharged are reasonably necessary for and incidental to the production of CSG. Accordingly they are authorised activities.

[37] A person may not enter private land to carry out an authorised activity for a petroleum authority unless an entry notice is given pursuant to s 497. That entry notice must state (*inter alia*) the activities proposed to be carrying out on the land: see s 499(1)(c).

[38] The notice which was served on 25 August 2009 was in the following terms –

"**Entry notice pursuant to sections 497 and 499 of the Petroleum and Gas (Production and Safety) Act 2004 (Qld) (P&G Act)**

Arrow (Daandine) Pty Limited ACN 114 927 481 (**Holder**) is the holder of petroleum lease (**PL**) 230. This letter is an Entry Notice (as defined in section 497(1)(a) of the P&G Act), given pursuant to sections 497 and 299 of the P&G Act.

The Holder advises you that it proposes to enter the land described as Lot 122 on SP 195958, Lot 147 on DY 579 and Lots 148, 157 and 158 on DY 910 (together the **Land**) for the purposes of undertaking these authorised activities under PL230:

Proposed authorised activities

The Holder requires access to the Land to undertake the following work and activities (**Activities**):

(a) drilling and completing 12 vertical wells; and

(b) work for an access corridor incorporating roads and other access ways and other infrastructure (including for pumping equipment, gas and water pipelines, electricity conduits and communications services) that relate to or provide access or services to vertical wells or any other infrastructure described in this paragraph (b); and

> (c) inspections of and maintenance of the 12 vertical wells and land surrounds and such remedial works as may be necessary from time to time; and
>
> (d) such activities and works on, under and over the Land under the authority of PL 230 as are incidental to and required for [sic] to undertake the activities described in paragraphs (a), (b) and (c).
>
> The Holder proposes to enter and remain upon the Land to conduct Activities from 9 September 2009 until 30 August 2010."

[39] The applicants contend that that notice was not an effective notice of entry for the purpose of construction of the treated water pipeline.

[40] There is no express reference to such a pipeline. Indeed, the notice was served before there had been any mention of such a pipeline.

[41] The respondent relies upon paragraphs (b) and (d).

[42] The meaning of "water pipelines" is prima facie ambiguous: it could be restricted to the untreated water pipeline or it could include the treated water pipeline. But, given the factual matrix in which the entry notice was given, I consider that "water pipelines" in paragraph (b) should be construed as relating to untreated water pipelines.

[43] That leaves the question whether the treated water pipeline is "other infrastructure…that relate(s) to or provide(s) access or services to the vertical wells" described in the paragraph. I acknowledge that the expression "relate to" is a very broad one. However, the treated water pipeline relates to the management of the associated water rather than to the vertical wells. It does not relate to any of the other infrastructure described in paragraph (b). Nor does it provide access to the vertical wells or any other infrastructure described in paragraph (b).

[44] Accordingly I consider that the laying of treated water pipeline is not within paragraph (b) of the entry notice served in August.

[45] Nor do I consider that it is incidental to or required for the undertaking of the activities in paragraphs (a), (b) and (c). Thus it is not within paragraph (d).

[46] Thus, I have concluded that the laying of the treated water pipeline is an authorised activity for PL230, but that the respondent has not given a notice of entry in relation to that activity.

[47] The respondent has commenced proceedings in the Land Court for the determination of compensation payable to the applicants for the laying of the treated water pipeline.

[48] Before the respondent could lawfully enter the applicants' land to lay the treated water pipeline it had to give a notice of entry pursuant to s 497 and to address the question of compensation payable to the applicants. Compensation could be addressed by a compensation agreement, a deferral agreement, or the applicants' being made respondents to an application to the Land Court: see s 536(2)(c). However, commencing a proceeding against the applicants in the Land Court cannot alter the unlawful character of the respondent's entry on to their land which results from its failure to give an entry notice pursuant to s 497.

[49] It follows that the applicants are entitled to declarations as to the unlawfulness of the respondent's entry on their land to construct the treated water pipeline. They are also entitled to an order restraining the respondent from further construction of the treated water pipeline unless and until a valid entry notice is served.

[50] But in my view, there ought not to be a mandatory injunction for the removal of the treated water pipeline. As counsel for the respondent has submitted, such an order would lack practical utility - the respondent could give the applicants a new entry notice and then enter their land to construct the pipeline. In other words, a mandatory injunction would require the applicants to remove the treated water pipeline only to return a short time later to construct it anew. As I have already noted, the estimated cost of removal is some $87,000. Insofar as the treated water pipeline has been laid in the same trench as the gas and the untreated water pipelines, rehabilitation of the affected land is nearly complete. There is little if any likelihood of the applicants' normal use of their land being affected by the presence of the treated water pipeline to any greater extent than it would be affected by the presence of the gas and untreated water pipelines. There is no reason why an award for damages would not be adequate compensation for the applicants. The Act contemplates the payment of compensation for compensable effects of authorised activities (s 531) and the proper forum for the determination of that compensation is the Land Court.

[51] The respondent's counsel also submitted that I should take account of the conduct of the applicants in not pressing for an injunction when their application came before the Court on 30 November 2009, knowing that the respondent was continuing to construct the treated water pipeline. He submitted that the applicants had sat on their rights to the respondent's detriment. I do not find it necessary to go into the circumstances in which the application was adjourned as I am otherwise satisfied that this is not an appropriate case for a mandatory injunction.

[52] I will hear counsel on the form of the orders.